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IVASYK N.

Lviv State University of Physical Culture

## Background development questionnaire quality of life for school age children with broncho-pulmonary disease

**Abstract. Purpose:** to prove feasibility of developing a questionnaire to assess quality of life for school-age children with acute broncho-pulmonary diseases. **Material and Methods:** analysis of scientific and methodological literature on the study of quality of life. **Results:** to assess quality of life using both general and specific questionnaires. The most of special are questionnaires designed for adults, and all pulmonary questionnaires designed for chronic diseases. There are of survey questionnaire for children with acute broncho-pulmonary diseases. **Conclusions:** the proposed of us a questionnaire for children with broncho-pulmonary diseases include questions to determine the effect impact of symptoms of diseases on motor activity and quality of life. In future we plans to cheak effectiveness of the application of this questionnaire for determine quality of life of children with acute broncho-pulmonary diseases with goal to determine the effectiveness of the rehabilitation process.

**Keywords:** quality of life, broncho-pulmonary diseases, children.

**Introduction.** Nowadays it is more often possible to meet qualities of life (QL) given relatively at treatment and rehabilitation of persons with different nosologies in scientific literature. According to V. I. Krivenko also co-authors. (2011), the term "quality of life is connected with health" (in English-speaking specialized literature - "health-related quality of life" is applied in medicine), under which a degree of wellbeing and satisfaction are understood those aspects of life which illness and its treatment influence [6].

In scientifically methodical literature over than 1000 general and special questionnaires are registered for the purpose of definition of QL [6].

Each of these questionnaires has criteria and scales of an assessment which differ among themselves by different signs (demographic, regional but other). Today many scientists of different branches are engaged in an assessment of QL of the population (economists, sociologists, physicians and others). The general questionnaire of Sf-36 which was developed in the Center of Studying of Medical Results (USA) in 1992 by Jonh E Ware and Cathy Donald Sherbourne is one of the most popular questionnaires which are used in Ukraine when carrying out researches for the purpose of an assessment of efficiency of the medical process [14; 17]. Its popularity is caused by that it is the most available in scientific literature, and it is considered as the most approved and validly [6]. By means of this questionnaire it is possible to estimate QL of respondents as different professions, and with different nosologies. And also to compare this indicator at persons who have certain diseases with almost healthy people from 14 years old [8;11]. The questionnaire of PEDSQL is widely used for the purpose of an assessment of QL of children in the countries of Europe, America and Asia [12] which includes a question as for children, and their parents / trustees.

Both general questionnaires on QL, and special questionnaires for patients with certain diseases are applied in medical practice. So, within ten special questionnaires, from which majority for bronchial asthma and their insignificant part, – for a chronic obstructive disease of lungs are used for persons with broncho-pulmonary pathologies [1; 2; 3; 6; 13].

As the concept QL is very wide and philosophical, there are also no only criteria of QL and consequently, and there are no standard norms of QL. However experts of WHO recommend applying the following main criteria of QL: physical, psychological, independence level, public life, and environment, spirituality which is differently packed and has components in different questionnaires.

**Communication of the research with scientific programs, plans, subjects.** The work is performed by a subject of the Built plan of the research work in the sphere of physical culture and sport for 2011-2015, a subject 4.2. "Physical rehabilitation of not full amendable with violation of activity of the musculoskeletal device" (number of state registration is 0111U006471).

**The objective of the research:** to prove expediency of the development of a questionnaire for the purpose of definition of QL for children of school age with sharp broncho-pulmonary diseases.

**Material and methods of the research:** the analysis of scientifically methodical literature concerning studying of quality of life is carried out.

**Results of the research and their discussion.** An indicator of QL is used actively when carrying out researches for the purpose of the development of aged-sexual standards, an assessment of efficiency of preventive actions, definition of complex influence of chronic diseases on children in the developed countries in pediatrics [4]. In general methods of an assessment of quality of life are rather well developed in practice for adult population, and some of them are applied to children (generally the adapted questionnaires).

The quality of life of a sick child is considered as the integrated characteristic of his state in modern health care [5].

For today studying of QL by means of special blanks (questionnaires) is all-accepted. Specifics of an assessment of QL at children are that modules of questionnaires differ on age; besides in the course of the research both a child and his parents take part [4]. However, as show results of the research of a number of authors, divergences often appear in an assessment of quality of life of a child and his parents [9; 15] and divergences between parents in an assessment of QL of their child [16].

Besides, the special questionnaires are calculated for persons with chronic pathologies. But any disease in this or that measure introduces amendments in human life of any age. Sharp broncho-pulmonary pathologies at children don't make exceptions. After all cough, get out of breath of different origin and degree, and decrease in physical activity demand

correction in everyday life of the child and her family. Therefore a renewal of function of external breath and prevention of emergence of complications or transition of a disease to a chronic form will be one of prime tasks at sharp broncho-pulmonary diseases. According to this purpose a complex treatment which includes at itself and physical rehabilitation is widely applied.

Interaction between rehabilitologist and a patient is one of factors of successful rehabilitation. Therefore by drawing up the program the expert has to consider not only data of objective inspection, but also value judgment of a condition of the patient (e.g. as a patient estimates influence of a disease on its everyday life which leads to the greatest discomfort which limits physical activity etc.). Therefore we developed the questionnaire of poll for children with sharp broncho-pulmonary diseases for the purpose of definition of influence of this disease on different components of its life and idea about individual reaction of a child to a disease (tab).

#### The questionnaire of poll of children with sharp broncho-pulmonary diseases

Questions	Answers					
	0-1	1-2	3-4	5-7	before 10	more than 10
How often (quantity of times) were you ill respiratory and viral infections during a year (RVI)?	0-1	1-2	3-4	5-7	before 10	more than 10
It is difficult for you to concentrate on classes at school	never	very seldom	sometimes	often	very often	almost constantly
Do you often should pass school because of broncho-pulmonary diseases?	never	very seldom	sometimes	often	very often	almost constantly
How many times are you ill to receipt to hospital?	1-2 days	3-6 days	7-10 days	10-14 days	about month	more than month
<b>How often have you... for the last 3 days:</b>						
Coughed	never	very seldom	sometimes	often	very often	almost constantly
Cough had exhausted you	never	very seldom	sometimes	often	very often	almost constantly
You have had an allocation of a phlegm	never	very seldom	sometimes	often	very often	almost constantly
You breathed a nose	never	very seldom	sometimes	often	very often	almost constantly
You have had allocations from a nose	never	very seldom	sometimes	often	very often	almost constantly
You have felt short wind at rest	never	very seldom	sometimes	often	very often	almost constantly
You have felt short wind at physical activity (e.g., raising on a ladder)	never	very seldom	sometimes	often	very often	almost constantly
You have had attacks of a whistling breath	never	very seldom	sometimes	often	very often	almost constantly
You have felt unpleasant pressure in a breast	never	very seldom	sometimes	often	very often	almost constantly
You have felt tension of a neck or shoulders	never	very seldom	sometimes	often	very often	almost constantly
<b>How much time were you limited in the following kinds of activity through trouble breathing during the last 3 days:</b>						
Sports or physical exercises	never	very seldom	sometimes	often	very often	almost constantly
It is difficult for you to walk upstairs	never	very seldom	sometimes	often	very often	almost constantly
You are compelled to pass school because of broncho-pulmonary disease	never	very seldom	sometimes	often	very often	almost constantly
It is difficult for you to put on, take a shower	never	very seldom	sometimes	often	very often	almost constantly
<b>How often have you felt during the last 3 days:</b>						
Anxiety, what can be worsen cough and breath?	never	very seldom	sometimes	often	very often	almost constantly
Anxiety, that you can lag from the school program because of a condition of health?	never	very seldom	sometimes	often	very often	almost constantly
Dejectedness because of problems with health	never	very seldom	sometimes	often	very often	almost constantly
That can't you do that children of your age do because of cough or short wind	never	very seldom	sometimes	often	very often	almost constantly
That because of your broncho-pulmonary disease, you sleep very bad	never	very seldom	sometimes	often	very often	almost constantly
<b>How often do you feel:</b>						
That it is difficult for you to be on friendly terms with your coevals	never	very seldom	sometimes	often	very often	almost constantly
That daily activity within the house is strongly limited	never	very seldom	sometimes	often	very often	almost constantly
That, despite of a disease, you feel sure when you leave the house	never	very seldom	sometimes	often	very often	almost constantly

This questionnaire contains questions which can conditionally be divided on: “general questions”, “symptoms”, “activity”, and “influence of a disease”. All questions which concern symptomatology and influence of a disease on the child’s life, concern the last three days of a disease which will help to understand better, how exactly the patient has a disease and what aspects of a disease cause most of all problems in the child. It in turn will allow approaching more carefully drawing up the rehabilitation program, considering influence of the given disease on health of the child. In this questionnaire the respondent has opportunity to choose the offered version of the answer (what questionnaire answers a certain point in the analysis), which, in his opinion, most precisely describes his state at the time of a poll.

In general, the smaller score will be gathered by the child, the higher will be estimated its quality of life.

**Conclusions.** QL are used both the general and the special questionnaires for the purpose of an assessment. The majority of special questionnaires are developed for adult persons, and all pulmonary questionnaires are developed for persons with chronic diseases. The offered by us questionnaire for children with broncho-pulmonary diseases includes a question for definition of influence of symptomatology of a disease on physical activity and quality of life of the child.

**In subsequent** it is planned to check the efficiency of application of this questionnaire for the definition of QL of children with sharp broncho-pulmonary diseases for the purpose of the determination of efficiency of the rehabilitation process.

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**Nataliya Ivasyk:** PhD (Physical Education and Sport), Associate Professor; Lviv State University of Physical Culture: Kostiusko Str. 11, 79007, Lviv, Ukraine.

**ORCID.ORG/0000-0002-0053-2854**

**E-mail: Ivasyk\_N@i.ua**